

Towards a checklist of the terrestrial and freshwater Arthropoda of the Maltese Islands

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There exists quite an extensive body of literature on Maltese terrestrial and freshwater arthropods. While a number of groups have been well studied, other groups are poorly known and further work is required in order to arrive at a better faunistic knowledge of these groups. The compilation of a complete checklist of all species of terrestrial and freshwater arthropods hitherto recorded from these islands will be presented.

A meticulous review of all scientific publications related to terrestrial and freshwater arthropods recorded from Malta between the early nineteenth century and the present day was carried out and has yielded a valuable insight into the biodiversity of this animal group. As expected in an insular environment, the Maltese arthropod fauna includes a number of endemic and sub-endemic species.

A number of the relevant taxonomic groups within the Phylum Arthropoda are richly represented in the Maltese fauna, while others comprise only a few species. Draft checklists for a number of taxonomic assemblages, have been compiled, but these drafts now need to be reviewed in order to ascertain the validity or otherwise of some species. For example, the website Fauna Europaea includes several species for which we have as yet been unable to trace any published records in the scientific literature. The same applies to other published works and Palaearctic checklists for specific taxonomic groups which include Malta in the geographical range of some species. Records in recent publications also need to be reviewed and included after validation.

All four subphyla of the Arthropoda, namely Chelicerata, Crustacea, Hexapoda and Myriapoda are represented in the Maltese fauna. The most numerous by far are the Hexapoda, which includes the Classes Entognatha and Insecta. The Insecta currently number over 4,000 species in 15 Orders. The five largest orders in Insecta are the Coleoptera (ca. 1,200 spp.), the Diptera (ca. 900 spp.), the Lepidoptera (ca. 700 spp.), the Hymenoptera (ca. 650 spp.) and the Hemiptera (ca. 550 spp.). The Chelicerata

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includes ticks and mites (Acari), spiders (Araneae) and four minor orders (Scorpiones, Palpigradi, Pseudoscorpiones and Opiliones). A recently published checklist of the Chelicerata accounts for 256 species. The Crustacea include a small number of freshwater species as well as a larger number of terrestrial woodlice (Isopoda), totalling in all about 70 species. The local Myriapoda fauna only comprises 36 species; 21 centipedes (Chilopoda) and 15 millipedes (Diplopoda).

This works-in-progress checklist places the total number of terrestrial and freshwater arthropods recorded from the Maltese Islands in the region of 4,350-4,500 species. This represents a considerable increase in species abundance from the current records available in the Fauna Europaea database, which account for less than 3,000 species.